

REMARKS

Applicant thanks the Examiner for the thorough consideration given the present application. Claims 13 and 14 were previously cancelled without prejudice to or disclaimer of the subject matter contained therein. Claims 1-12 are pending. Claims 1, 6, 7, and 12 are amended. Claims 1 and 7 are independent. The Examiner is respectfully requested to reconsider the rejections in view of the amendments and remarks set forth herein.

Allowable Subject Matter

In the Advisory Action dated August 20, 2008, the Examiner states that claims 5 and 11 are objected-to. In view of the comments on page 4 of the Office Action dated May 5, 2008 and the Advisory Action dated August 20, 2008, the Applicant believes that each of claims 5 and 11 would be allowable if rewritten in independent form to include the subject matter of the base claim and any intervening claims.

However, rather than rewriting either of objected-to claims in independent form at this time, instead the Applicant has made clarifying amendments to independent claims 1 and 7, which are believed to place each of independent claims 1 and 7 in condition for allowance.

Examiner Interview

If, during further examination of the present application, a discussion with the Applicant's Representative would advance the prosecution of the present application, the Examiner is encouraged to contact Carl T. Thomsen (Registration No, 50,786) at 1-703-208-4030 (direct line) at his convenience.

Amendments to the Specification

Paragraph [0057] of U.S. Patent Publication No. 2007-0092158 has been amended merely to correct a typographical error in the original application. No new matter has been added.

Rejections Under 35 U.S.C. § 103(a)

Claims 1-4, 6-10, and 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Martins (U.S. Patent 6,950,123), in view of Averbuch et al. (U.S. Patent 7,085,401).

This rejection is respectfully traversed.

Amendments to Independent Claims 1 and 7

While not conceding the appropriateness of the Examiner's rejection, but merely to advance the prosecution of the present application, independent claims 1 and 7 have been amended, respectively, to recite a combination of features, including *inter alia*

“a method (or an apparatus) of eliminating a line segment having only two end points from a line-shaped image object overlapping a moving image object in a single image comprising effective or ineffective pixels, from the moving image object, the apparatus comprising:

a line segment extraction step (or means) for extracting the line segment having only two end points from the line-shaped image object”.

For support, see for example, paragraphs [0047], [0048], and [0052], and FIGS. 3 and 4, and paragraphs [0065] to [0067] and FIG. 6 of the present application as published in U.S.

Patent Publication No. 2007/0092158, which clearly disclose “eliminating a line segment having only two end points from a line-shaped image object”.

In contrast to the present invention, the Martins document merely discloses “when eliminating line-shaped image objected from the entire image including moving objects, the line-shaped image object means a field area bounded by multiple line segments (for example, a quadrangle, triangle...)

In other words, Martins teaches eliminating an entire field area of shaped image objects bounded by the multiple line segments, whereas the present invention ONLY eliminates a line segment having only two end points, and does NOT eliminate any of the area adjacent to the line segment having only two end points.

With the present invention, pixel interpolation is easier and is highly reproducible than with the method of Martins, because the present invention eliminates only the line segment. By contrast, the Martins method eliminates an entire field area bounded by multiple line segments of a line-shaped image. Thus, because of eliminating the entire field area of the line-shaped image, Martins has a wasted area in the image

In view of the above, Martins cannot teach or suggest the present invention as set forth in each of independent claims 1 and 7.

As previously argued, in Averbuch et al. (U.S. Patent 7,085,401 B2), the object in the binary image has a bounding contour composed of polygons that may have missing pixels. And as for the procedure to fill the missing pixels, Averbuch et al. merely choose the lowest real point on the polygon that was derived in the previous step, and take the perpendicular

line of the lowest pixel. Then Averbuch et al. draw a line after line in a clockwise direction until they hit another existing pixel on the polygon (Column 26).

Thus, Averbuch et al. cannot make up for the deficiency of Martins to teach or suggest the present invention.

At least for the reasons explained above, the Applicant respectfully submits that the combination of features set forth in each of independent claims 1 and 7 is not disclosed or made obvious by the prior art of record, including Martins and Averbuch et al.

Therefore, independent claims 1 and 7 are in condition for allowance.

Dependent Claims

Dependent claims 6 and 12 have been amended merely to place them in better form.

All dependent claims are in condition for allowance due to their dependency from allowable independent claims, or due to the additional novel features set forth therein.

All pending claims are now in condition for allowance.

Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are respectfully requested.

Application No. 10/550,896
Amendment dated September 22, 2008
Reply to Office Action of May 5, 2008

Docket No. 4035-0175PUS1
Art Unit: 2624
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CONCLUSION

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. It is believed that a full and complete response has been made to the outstanding Office Action, and that the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, he is invited to telephone Carl T. Thomsen (Reg. No. 50,786) at (703) 208-4030(direct line).

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17, particularly extension of time fees.

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Respectfully submitted,

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